

Measuring Up 2002: Implications for Tennessee Higher Education



Measuring Up 2002

- The importance of *Measuring Up 2002* is that it provides state policymakers with the opportunity to examine the ability of higher education to meet the needs of the state population in terms of educational, economic, and social development.
- The study clearly notes that the future health and welfare of states will be determined by their current educational capacities.



Indicators in *Measuring Up 2002*

- **Preparation:** measures how well K-12 systems prepare students for college-level education and training.
- **Participation:** addresses the opportunity for state residents to enroll in higher education.
- **Affordability:** measures whether students and families can afford higher education, given current economic circumstances and levels of financial aid.
- **Completion:** addresses whether students continue through their educational program to earn degrees.
- **Benefits:** this category includes the economic and societal benefits that states receive as a result of having a well-educated workforce.



The Significance of *Measuring Up* 2002

- The report provides policymakers with an objective set of information to assess the relative health of their systems of higher education.
- The report forces policymakers to look at educational issues from a macro, rather than micro level. In their analysis of state-wide governance and policy concerns, Callan et. al. contend that disproportionate attention has historically been given to institutional rather than state-wide needs/issues.
- Callan suggests that the era of institution building has come to an end and that a new set of policy questions must be developed. Through macro-oriented lenses, the central concern for states should be whether their residents are able to participate in the a system of education that provides opportunities to obtain the benefits that accrue to those with higher learning.
- In this regard, reports such as *Measuring Up* are critical to guide both institutional and state policymakers by shining light on key system-wide measures of performance.



Measuring Up 2002 - Tennessee

<u>Category</u>	<u>2000</u>	<u>2002</u>
I. PREPARATION:	C-	D-
II. PARTICIPATION:	D-	D+
III. AFFORDABILITY:	C	D-
IV. COMPLETION:	C	C+
V. BENEFITS:	D+	D+



Measuring Up 2002: Tennessee

- Tennessee is in a national race to develop a knowledge-based society that facilitates competition in the information marketplace. The academic imperative to maximize the achievement of all students must come to the forefront.
- Major gains are unlikely unless higher education works cooperatively with the K-12 sector to ensure that students are prepared for college, educational costs remain affordable, and a greater percentage of students to enter and graduate from college on time.
- By bringing these pieces of the puzzle together, Tennessee will eventually be able to realize a higher degree of performance on the criteria in *Measuring Up*.



Educational Attainment and Participation



Educational Attainment among SREB States

Percentage of Population 25 or Older with a Bachelor's Degree (2000 Full Census)					
	1990	1995	1999	2000	% Change
United States	20.3%	23.0%	25.2%	24.4%	4.1%
SREB States	18.6%	19.9%	21.7%	22.4%	3.8%
Alabama	15.7%	17.3%	21.8%	19.0%	3.3%
Arkansas	13.3%	14.2%	17.3%	16.7%	3.4%
Delaware	21.4%	22.9%	24.0%	25.0%	3.6%
Florida	18.3%	22.1%	21.6%	22.3%	4.0%
Georgia	19.6%	22.7%	21.5%	24.3%	4.7%
Kentucky	13.6%	19.3%	19.8%	17.1%	3.5%
Louisiana	16.1%	20.1%	20.7%	18.7%	2.6%
Maryland	26.5%	26.4%	34.7%	31.4%	4.9%
Mississippi	14.7%	17.6%	19.2%	16.9%	2.2%
North Carolina	17.4%	20.6%	23.9%	22.5%	5.1%
Oklahoma	17.8%	19.1%	23.7%	20.3%	2.5%
South Carolina	16.6%	18.2%	20.9%	20.4%	3.8%
Tennessee	16.0%	17.8%	17.7%	19.6%	3.6%
Texas	20.3%	22.0%	24.4%	23.2%	2.9%
Virginia	24.5%	26.0%	31.6%	29.5%	5.0%
West Virginia	12.3%	12.7%	17.9%	14.8%	2.5%

TN ranked 10th in the SREB in 2000, an increase of one position over 1990.

To reach the average attainment level of our border states, we need to create 181,530 additional college graduates



Average for U.S. in 2000: 24.4%

In 41 counties, 10% or less hold a college degree.



A map of Tennessee showing its 95 counties. Each county is colored based on the year it was admitted to the state. The colors range from dark brown (earliest) to white (latest). The counties are labeled with their names. The map shows a clear progression of statehood years from west to east and from north to south.

County	Year
Montgomery	1796
Robertson	1796
Stewart	1796
Sumner	1796
Thompson	1796
Macon	1796
Clay	1796
Pickett	1796
Clay	1796
Overton	1796
Fentress	1796
Scott	1796
Campbell	1796
Calhoun	1796
Hancock	1796
Sullivan	1796
Johnson	1796
Washington	1796
Carter	1796
Union	1796
Grainger	1796
Hawkins	1796
Hamblen	1796
Greene	1796
Unicoi	1796
Jefferson	1796
Cocke	1796
Sevier	1796
Blount	1796
Loudon	1796
Roane	1796
Cumberland	1796
Anderson	1796
Knox	1796
Putnam	1796
DeKalb	1796
White	1796
Van Buren	1796
Warren	1796
Grundy	1796
Marion	1796
Hamilton	1796
Bradley	1796
Polk	1796
Monroe	1796
McMinn	1796
Meigs	1796
Rhea	1796
Bledsoe	1796
Sequatchie	1796
Coffee	1796
Franklin	1796
Moore	1796
Lincoln	1796
Giles	1796
Wayne	1796
Hardin	1796
McNairy	1796
Hardeman	1796
Fayette	1796
Shelby	1796
Tipton	1796
Haywood	1796
Crockett	1796
Laurens	1796
Dyer	1796
Gibson	1796
Carroll	1796
Benton	1796
Humphreys	1796
Dickson	1796
Beaumont	1796
Davidson	1796
Wilson	1796
Smith	1796
Putnam	1796
DeKalb	1796
White	1796
Van Buren	1796
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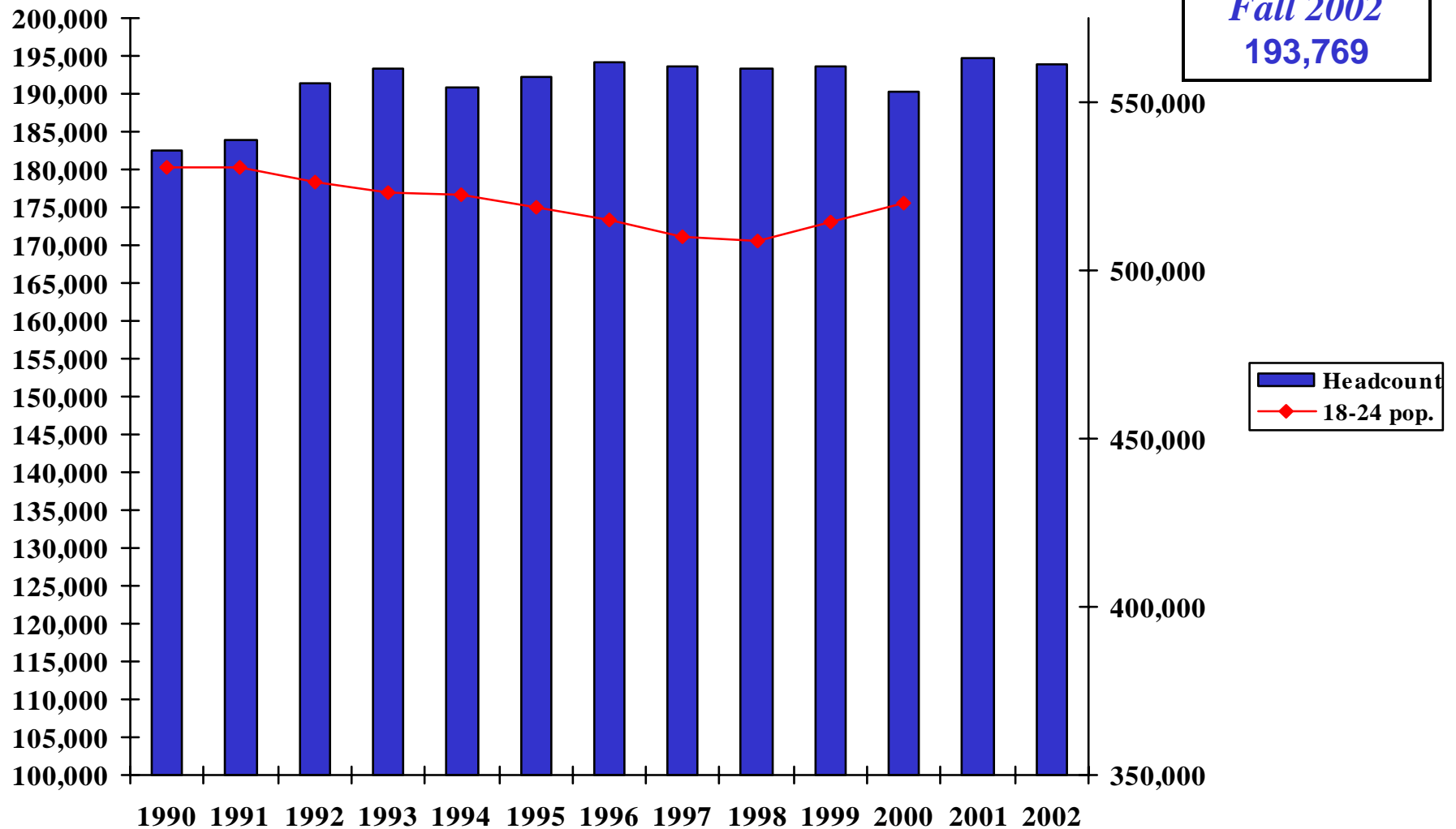
National Average: **80.4%**

Only 8 counties in Tennessee are above the national average.



Enrollment Trends: 1990-2002

*Preliminary
Fall 2002
193,769*



Student Transitions and the Educational Pipeline



Student Progression - National Studies

- Several recent studies have highlighted the difficulties that high school seniors have with respect to transitioning through the educational pipeline.
- Greene (2002) and Mortenson (2001) note that less than 60% of high school seniors graduate on time with a degree, and less than 30% receive a bachelor's degree.
- One of the central missions of Tennessee's P-16 Council is to address issues of student transition.



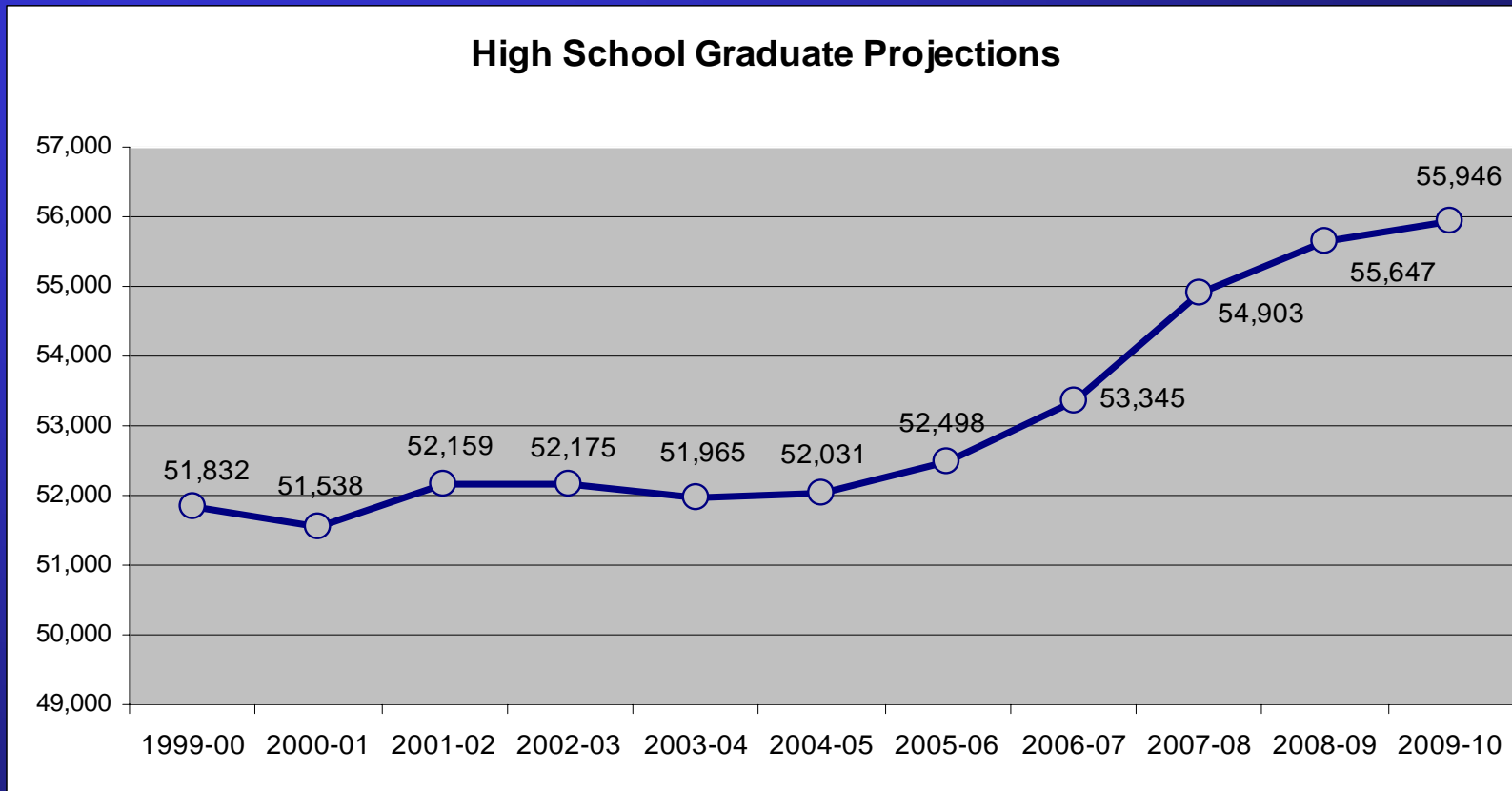
Enrollment of Recent High School Graduates: 1999-00

	Average Estimated Percent of Recent High School Graduates in College
United States	59
SREB states	55
Alabama	59
Arkansas	53
Delaware	63
Florida	50
Georgia	57
Kentucky	54
Louisiana	58
Maryland	57
Mississippi	63
North Carolina	59
Oklahoma	49
South Carolina	60
Tennessee	56
Texas	52
Virginia	55
West Virginia	52

- If Tennessee were to increase participation rates to the national average, we would expect to see an increase of 1,320 first time freshman entering higher education.
- Placing this number into a useable context, this is equivalent to the entire entering in-state freshmen class at East Tennessee State University.



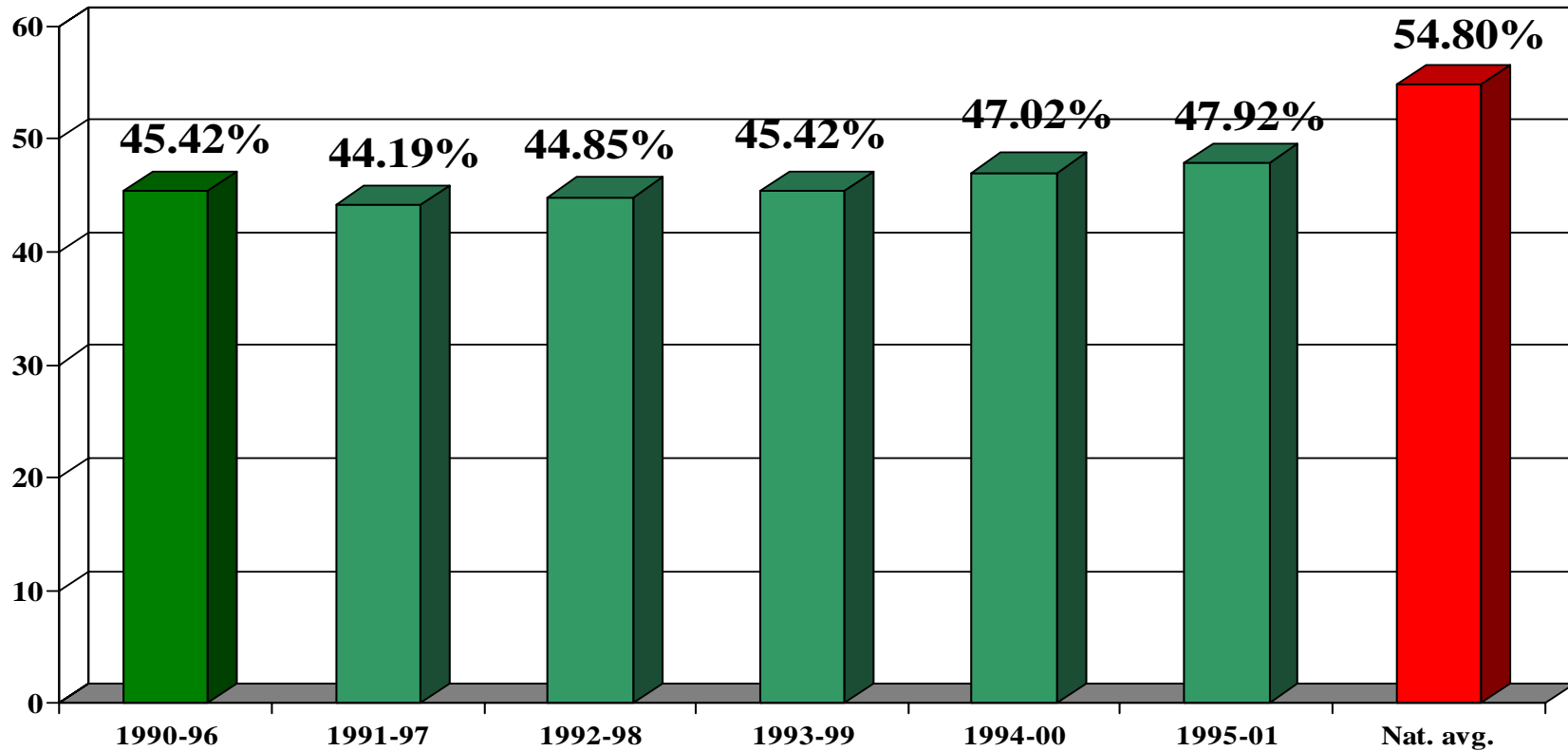
High School Graduate Projections: 2000 - 2010



- According to SREB, the number of graduates produced by public and private high schools in Tennessee will increase by 4,114 students from 2000 to 2010. Assuming that factors remain constant, this will yield @ 2,300 additional first-time freshman, which is comparable to the combined freshman classes at East Tennessee State University and Tennessee Technological University.

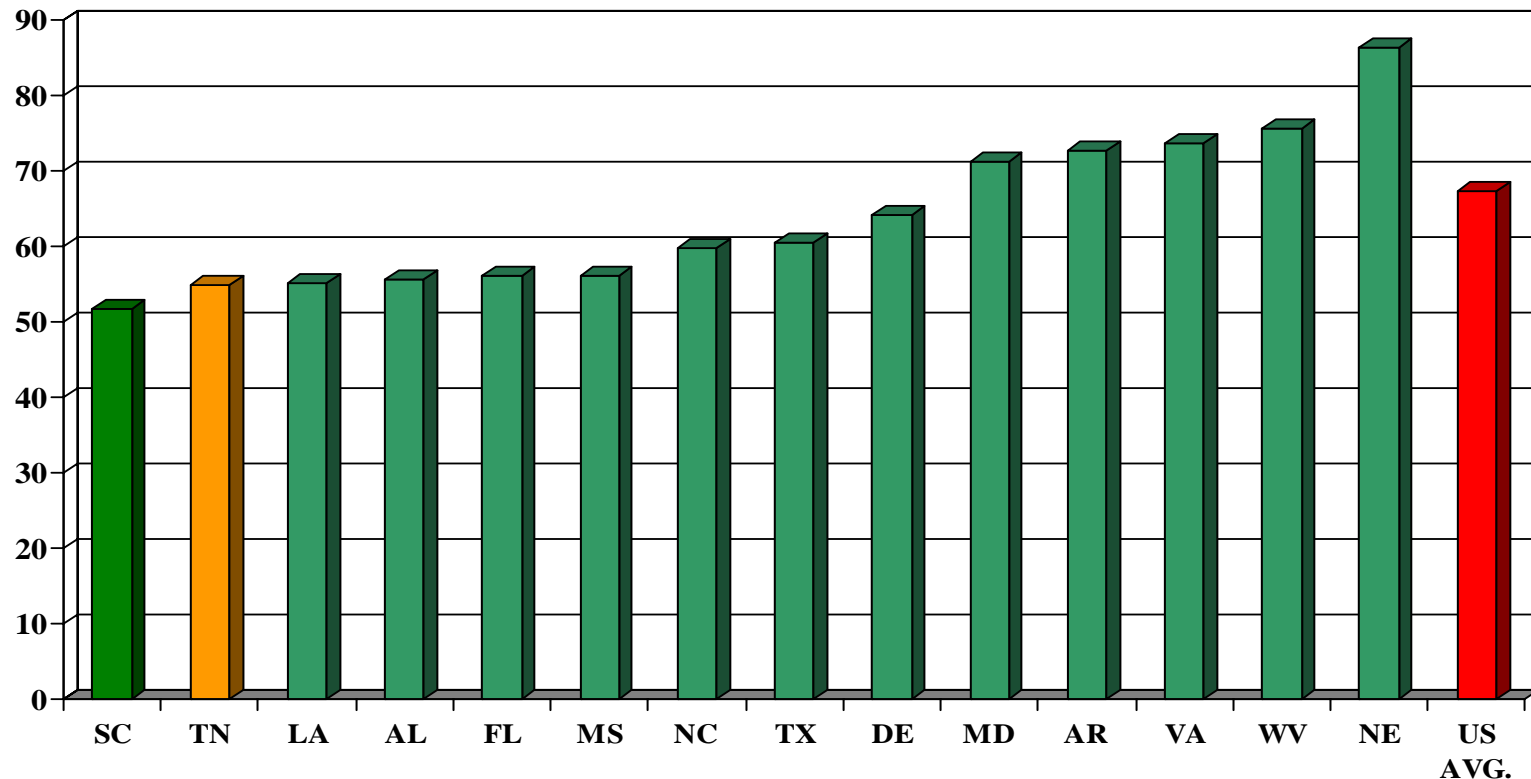


Graduation Rates - Universities



Of the 13,475 students who entered the university sector in Fall 2001, how many will graduate by 2007? Assuming that factors remain constant, only 47.9%, or 6,454 students, will receive their college degree. What would higher education look like if college graduation rates improved to the national average of 54.8%? An increase of this magnitude would yield approximately 930 additional college graduates from the class of 2001.

P-16 Progression Rates



In 1998-99, 61,738 (55,065 ADM) students enrolled in the 11th grade in Tennessee. By 1999-00, the cohort's senior year, the number of students had declined to 57,531 (50,065 ADM). Of these students, 44,681 received academic degrees. Of these graduates, 25,112 enrolled in college in Fall 2000. Based upon the state's average graduation rate, @ 13,000 will receive a bachelor's degree. Thus, @ 45,000 students never make it out of the "complete" education pipeline.

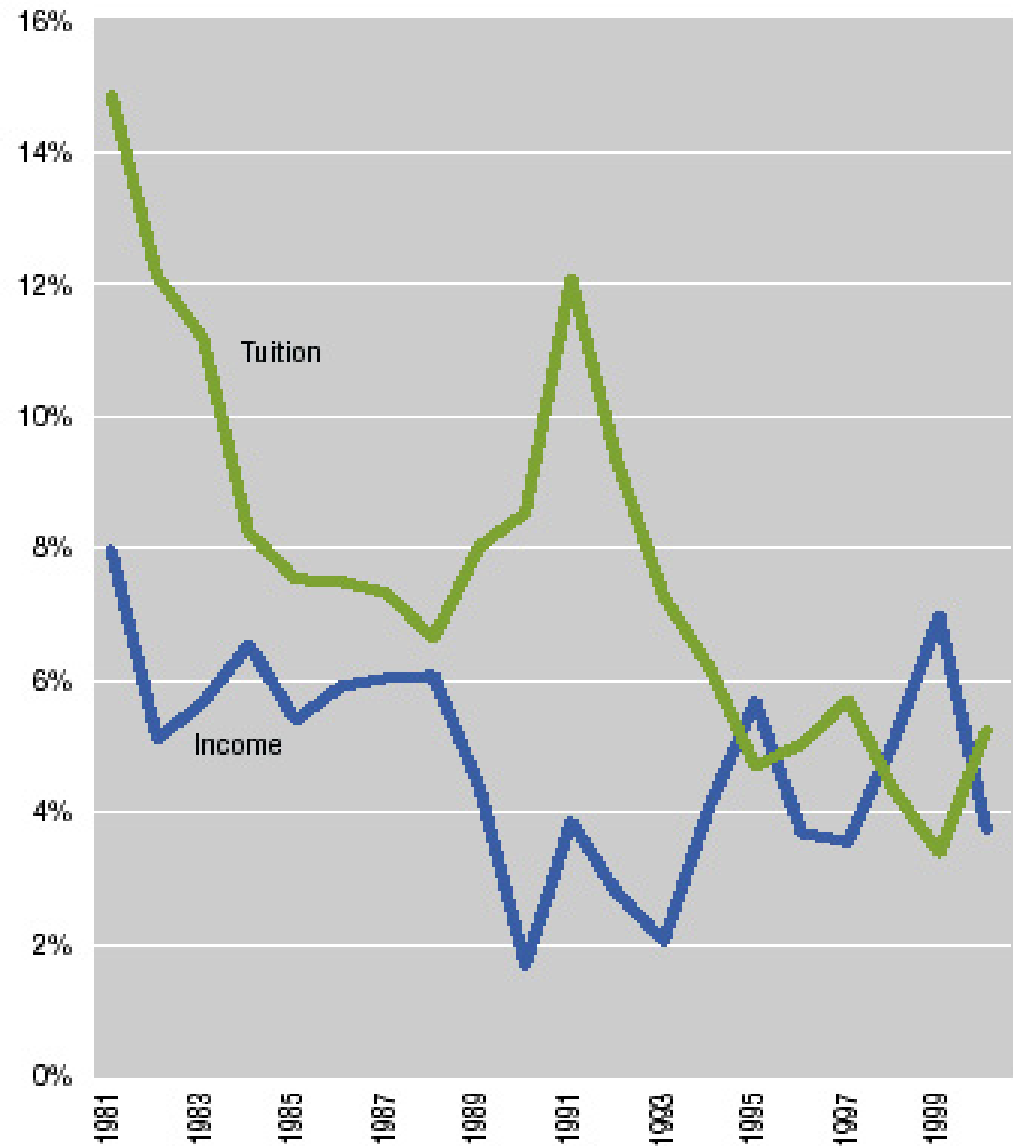
Losing Ground: Tuition and the Shifting Funding Responsibility



Tuition Increases and Recessions

- Eroding cycle of affordability
- The steepest tuition increases have occurred when students and families are least able to pay
- During economic downturns, appropriations to higher education are often the “balance wheel in state finance” and absorb large budgets.

Figure 7
Tuition at Public Colleges Has Increased
Most During Recessions



Percentage Change Since Previous Year in Average Tuition at Public Four-Year Colleges and in Median Family Income

Source: Washington Higher Education Coordinating Board; U.S. Census Bureau.

Appropriations Trends

**Trends in State and Local Operating Appropriations Per FTE
at Public Colleges and Universities (adjusted for inflation)**

	Four-Year Colleges and Universities			
	1994-95	1999-2000	Change	Percent
SREB states	\$5,997	\$6,037	\$40	0.7
Alabama	5,777	4,871	-906	-15.7
Arkansas	5,451	5,618	167	3.1
Delaware	--	5,503	--	--
Florida	7,869	7,520	-349	-4.4
Georgia	6,427	7,562	1,135	17.7
Kentucky	5,083	5,025	-58	-1.1
Louisiana	3,908	3,803	-105	-2.7
Maryland	7,217	7,054	-163	-2.3
Mississippi	5,652	6,321	669	11.8
North Carolina	7,836	7,862	26	0.3
Oklahoma	4,753	5,204	451	9.5
South Carolina	5,498	5,367	-131	-2.4
Tennessee	6,633	5,330	-1,303	-19.6
Texas	6,261	6,133	-128	-2.0
Virginia	4,707	5,766	1,059	22.5
West Virginia	4,188	3,954	-234	-5.6

Source: SREB

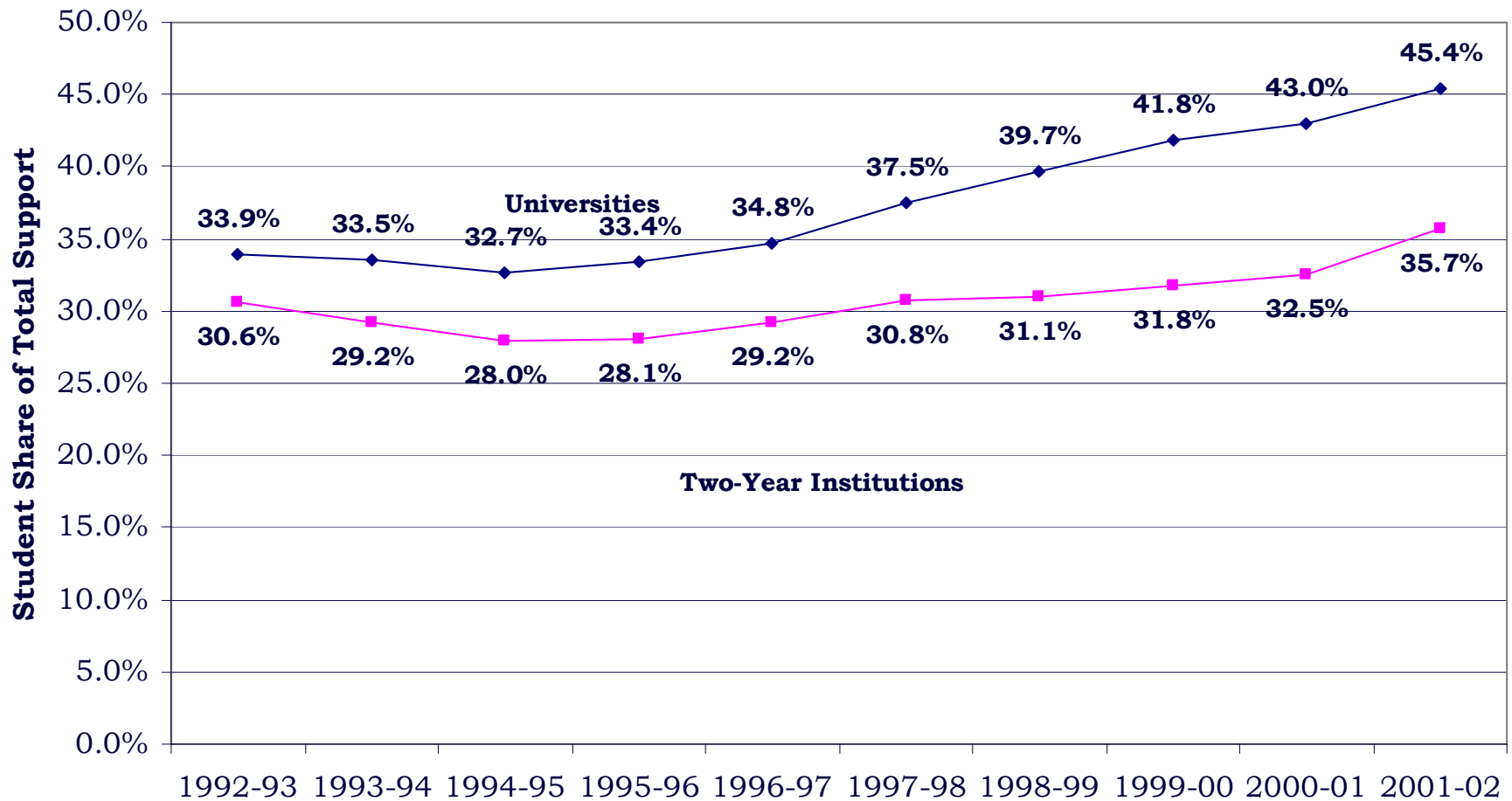
Total Support per FTE – TN vs. Peers

Student Support Analysis Compared to Peers

2000-01	Avg. Support per FTE	Avg. Support per FTE - Peers	Percent of Peer Avg.	Total Difference from Peers
APSU	8,008	9,050	88.5%	6,245,700
ETSU	8,614	9,079	94.9%	4,511,400
MTSU	7,759	9,376	82.8%	28,017,800
TSU	9,044	9,298	97.3%	2,048,300
TTU	8,871	9,036	98.2%	1,233,200
UM	10,121	11,184	90.5%	18,047,600
UTC	8,530	8,904	95.8%	2,804,300
UTK	11,826	12,966	91.2%	27,448,900
UTM	8,246	8,728	94.5%	2,650,500
Two Yrs.	5,665	5,882	96.3%	13,486,000
			Totals	106,493,700

Source: Southern Regional Education Board

Student Share of Total Per Student Support



- From 1992 to 2001, the proportion of total operating expenses accounted for by student fees has increased from 33.9% to 45.4% for the university sector.

The Increasing Dependency on Tuition

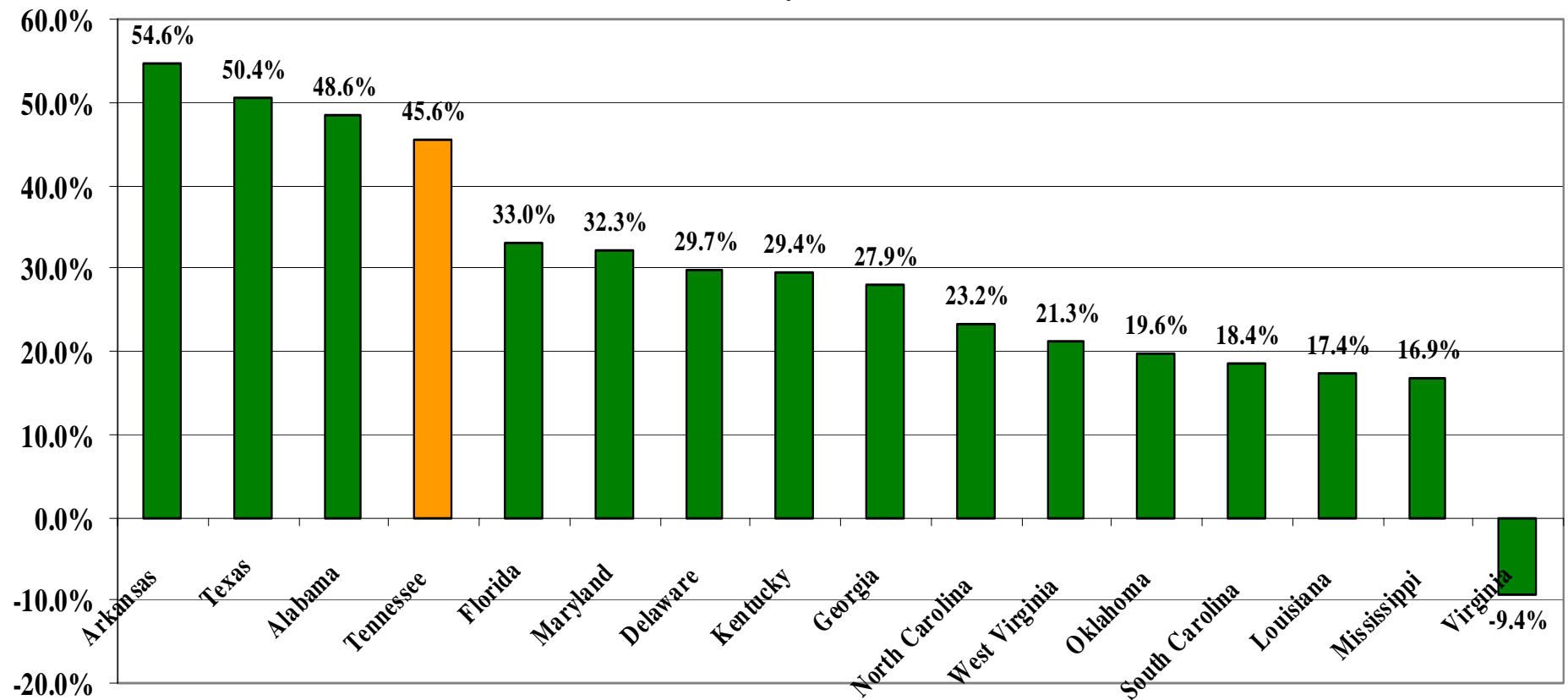
2000-01	Percent from Tuit./Fees	Peer Percent from Tuit./Fees
APSU	39.6%	32.8%
ETSU	39.9%	31.9%
MTSU	42.7%	30.9%
TSU	51.9%	31.7%
TTU	34.1%	32.7%
UM	40.7%	35.6%
UTC	38.5%	31.4%
UTK	43.0%	34.5%
UTM	40.5%	32.9%
Two Yrs.	32.2%	21.6%

- For 2000-01, a greater proportion of total operating expenses were accounted for by student fees in Tennessee than among peer institutions.



Impacts on Affordability

Percent Change from 95-96 to 00-01 in Median Tuition at
All Public 4-year Schools



Source: Southern Regional Education Board

Cost of Attendance - A Regional Overview

Cost of Attendance Comparisons 2000

State	Median Household Income	Tuition and Fees - 4 Year	Tuition and Fees - 2 year	Total Cost of Attendance - 4year
Alabama	\$34,135	8.9%	5.0%	22.7%
Arkansas	\$32,182	11.9%	3.2%	25.5%
Georgia	\$42,433	7.6%	3.5%	19.2%
Kentucky	\$33,672	9.8%	3.5%	22.9%
Mississippi	\$31,330	9.9%	3.4%	23.2%
North Carolina	\$39,184	7.0%	2.3%	20.0%
South Carolina	\$37,082	10.1%	3.5%	23.6%
Tennessee	\$36,360	10.1%	3.9%	22.8%
Virginia	\$46,667	8.4%	2.5%	20.6%

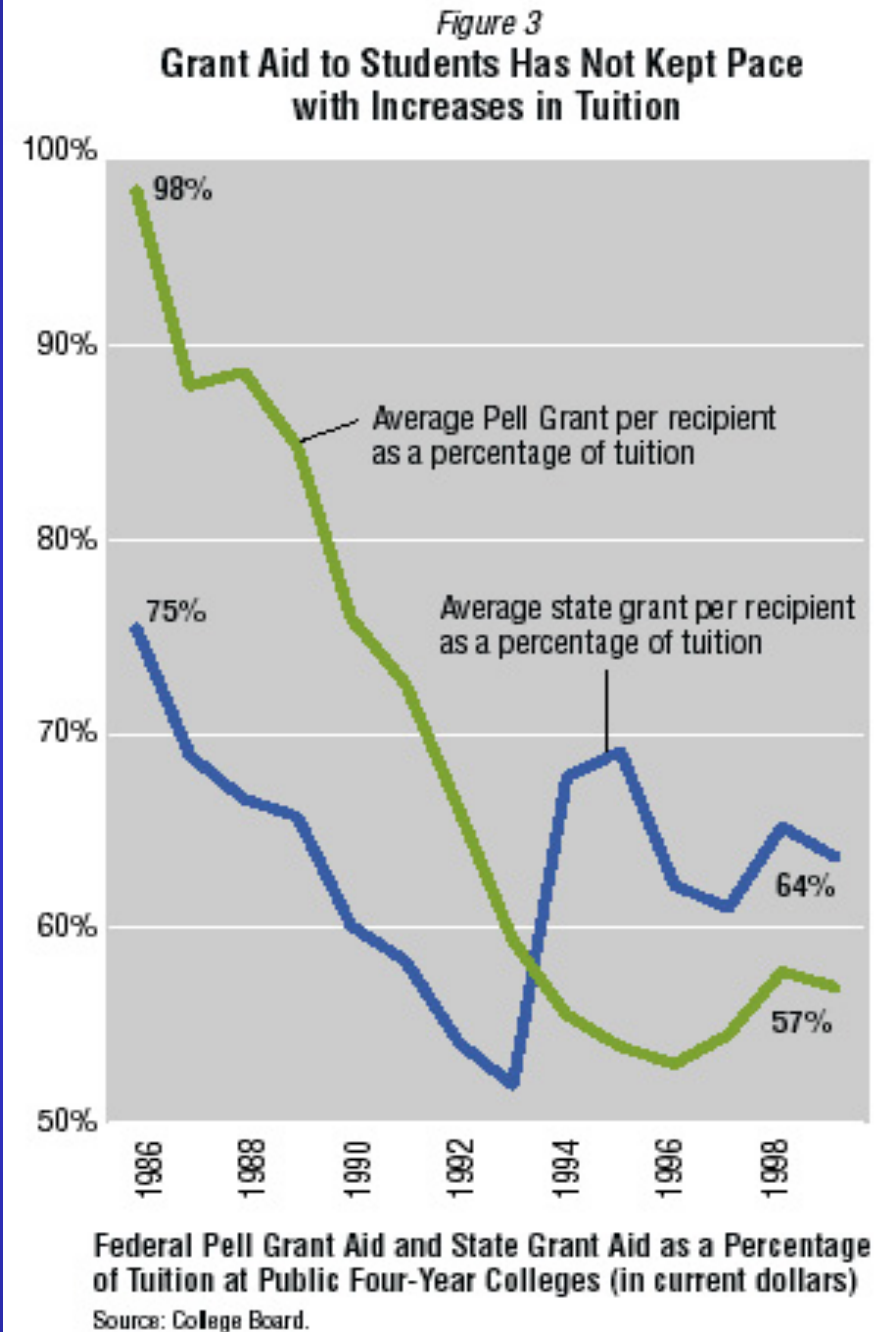
Cost of Attendance - The Difference Between TN Counties

County	Median Household Income	Total Cost of Attend.
Williamson	\$69,104	12.5%
Wilson	\$50,140	17.7%
Rutherford	\$46,312	18.5%
Hancock	\$19,760	40.3%
Lake	\$21,995	38.5%
Fentress	\$23,238	38.0%



Financial Aid Has Not Kept Pace With Tuition Increases

- Pell Grants now cover a smaller portion of tuition than they did in 1986
- In 1976, the maximum award covered 84% of tuition costs, in 2000 it covered only 39%



Funding for Financial Aid in Tennessee

2000-01 Aid Dollars per Various Demographics

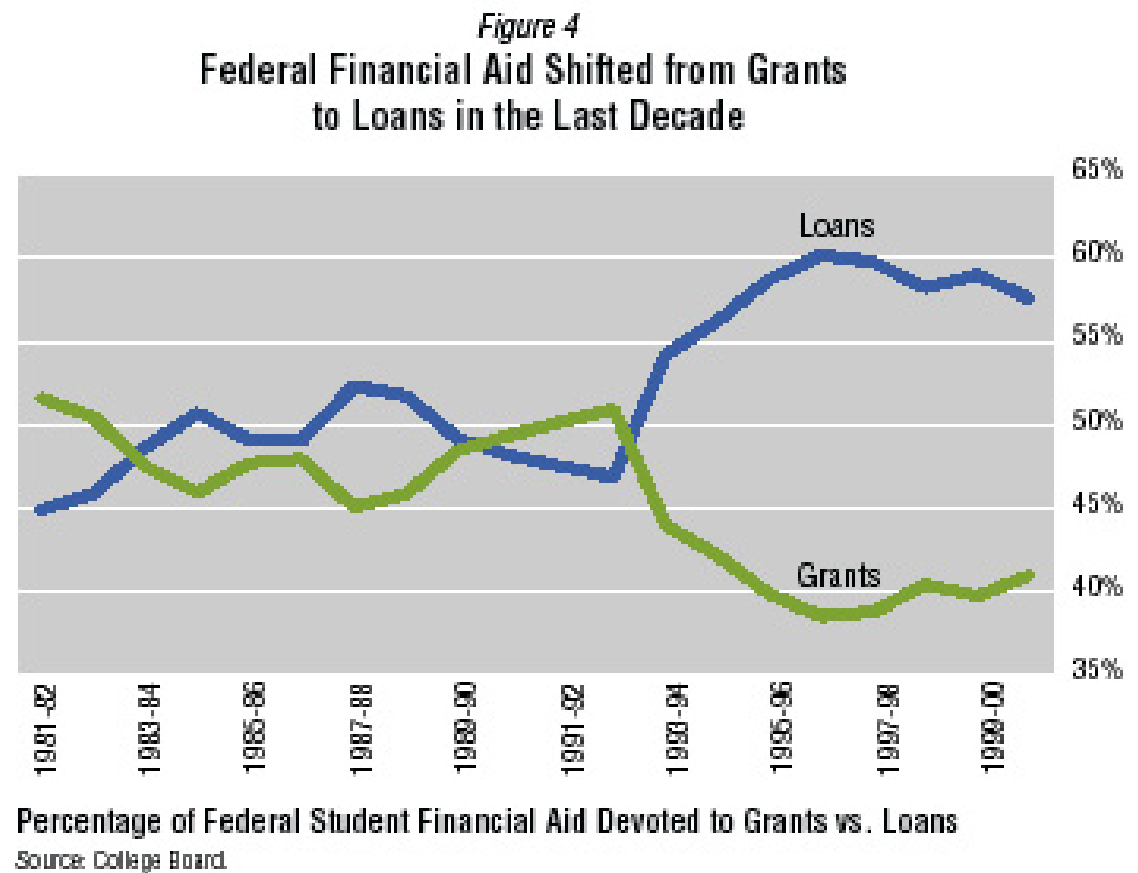
	Amount
TN per Resident	\$5.34
National per Resident	\$12.91
TN per Resident (18-24 yrs old)	\$56
National per Resident (18-24)	\$135
TN per Undergraduate FTE	\$164
National per Undergraduate FTE	\$367

Source: NASGAP, 2000-01 Annual Survey Report

TN students receive only **2.3%** of their financial aid via state assistance, well below the regional average of **4.3%**. Adjusting for the HOPE program in GA, TN is well off the adjusted regional average of **3.7%**.

Increased Reliance on Student Loans

- In 1996, TSAC guaranteed \$1,921,072,516 in student loans
- In 2001, TSAC guaranteed student loans totaled over \$2,678,249,189
- The number of individual borrowers increased 30% from 1996 to 2001.



Losing Ground - Increasing Student Debt

- In 1999-00, 64% of graduating students carried student loans, compared to 42% in 1992-93.
- The average debt burden increased from \$9,188 in 1992-93 to \$16,928 in 2000.
- Of those students who graduated in 2000 with loans, 39% had unmanageable debt.
 - *Unmanageable debt: Loan payments exceed 8% of monthly income*
- 84% of African American students graduate with debt, and 55% of unmanageable debt.
- In addition to student loans, 41% of graduating seniors carry credit card debt, with an average loan balance of \$3,071.



The Nexus of Education and the Economy



Benefits of Investments in Higher Education

Institute for Higher Education Policy (1998)

Private social benefits

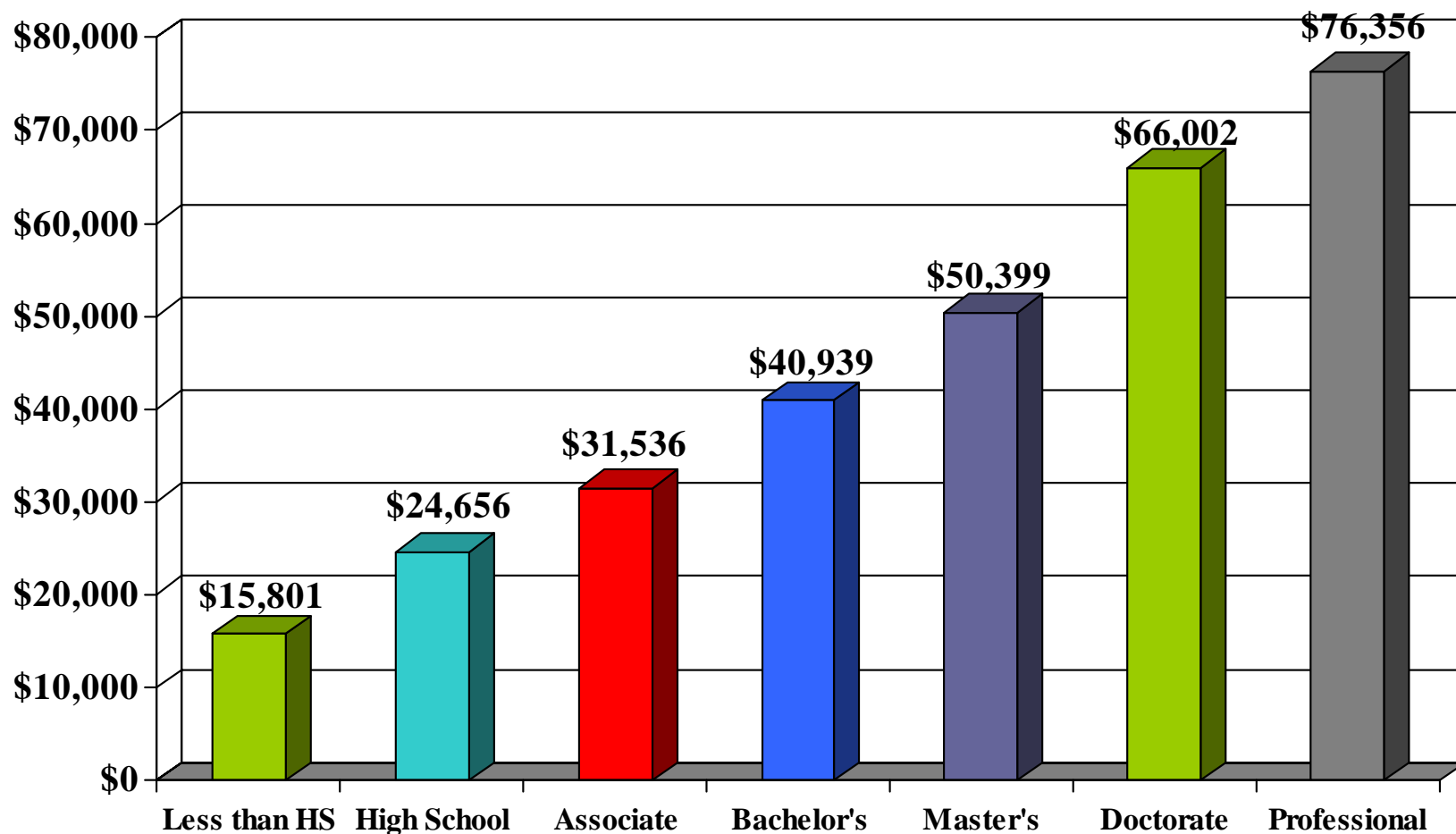
Public social benefits

Private economic benefits

Public social benefits

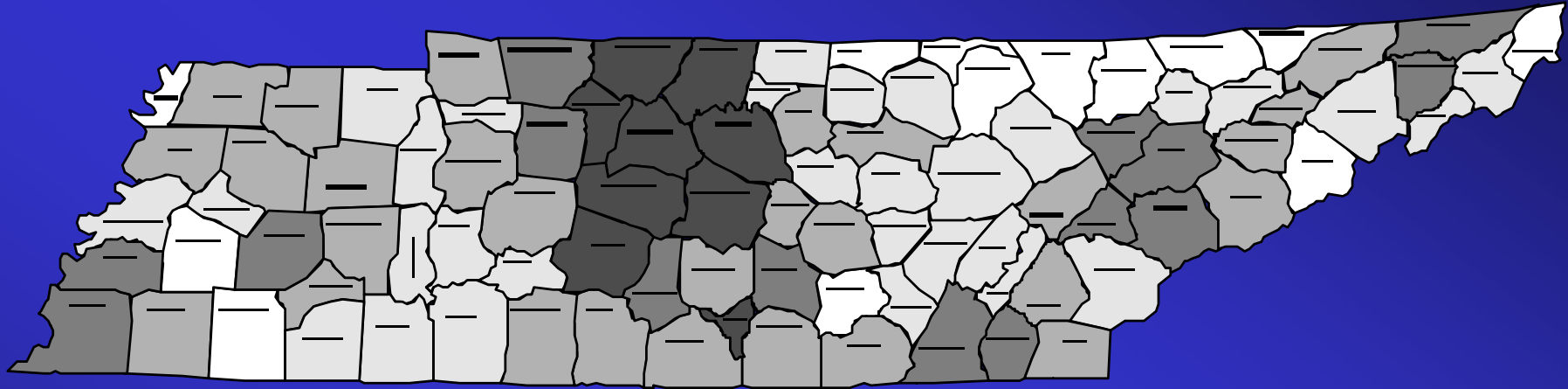
This framework ensures a review of all benefits while recognizing that some benefits are not easily placed into one category, but rather contribute to multiple categories leading to the interdependency of public and private benefits and social and economic benefits.

Financial Benefits of Investments in Education



Source: U.S. Census Bureau, Current Population Survey, March 2002

Median Household Income - 2001



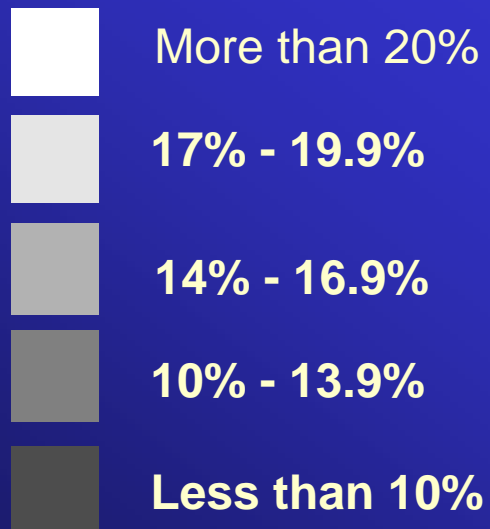
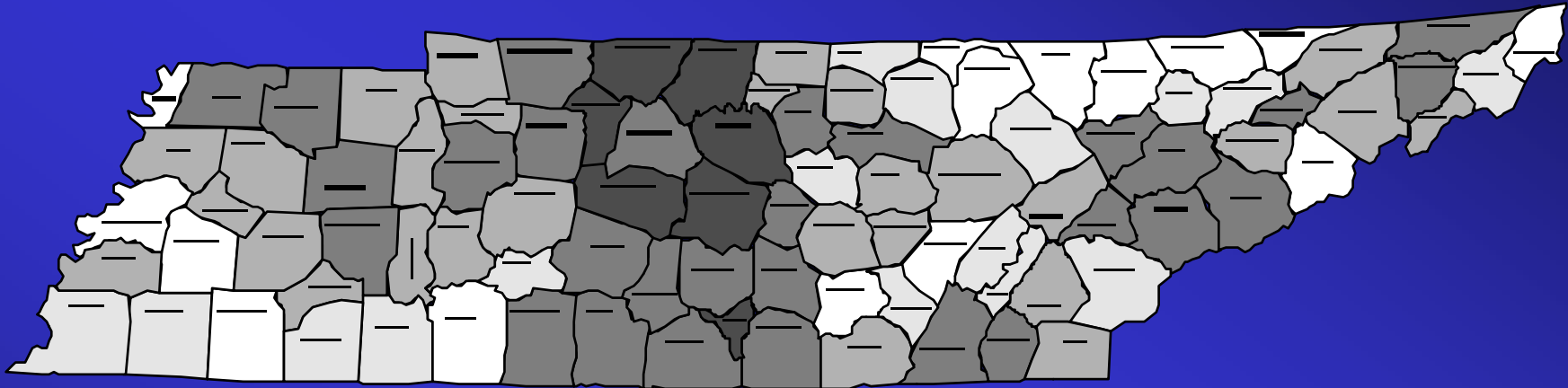
Median Household Income for
State of Tennessee - 2001

\$36,542

U.S. Average: \$42,973



Percent of Population in Poverty - 2001



Examples of Poverty Thresholds in 2001

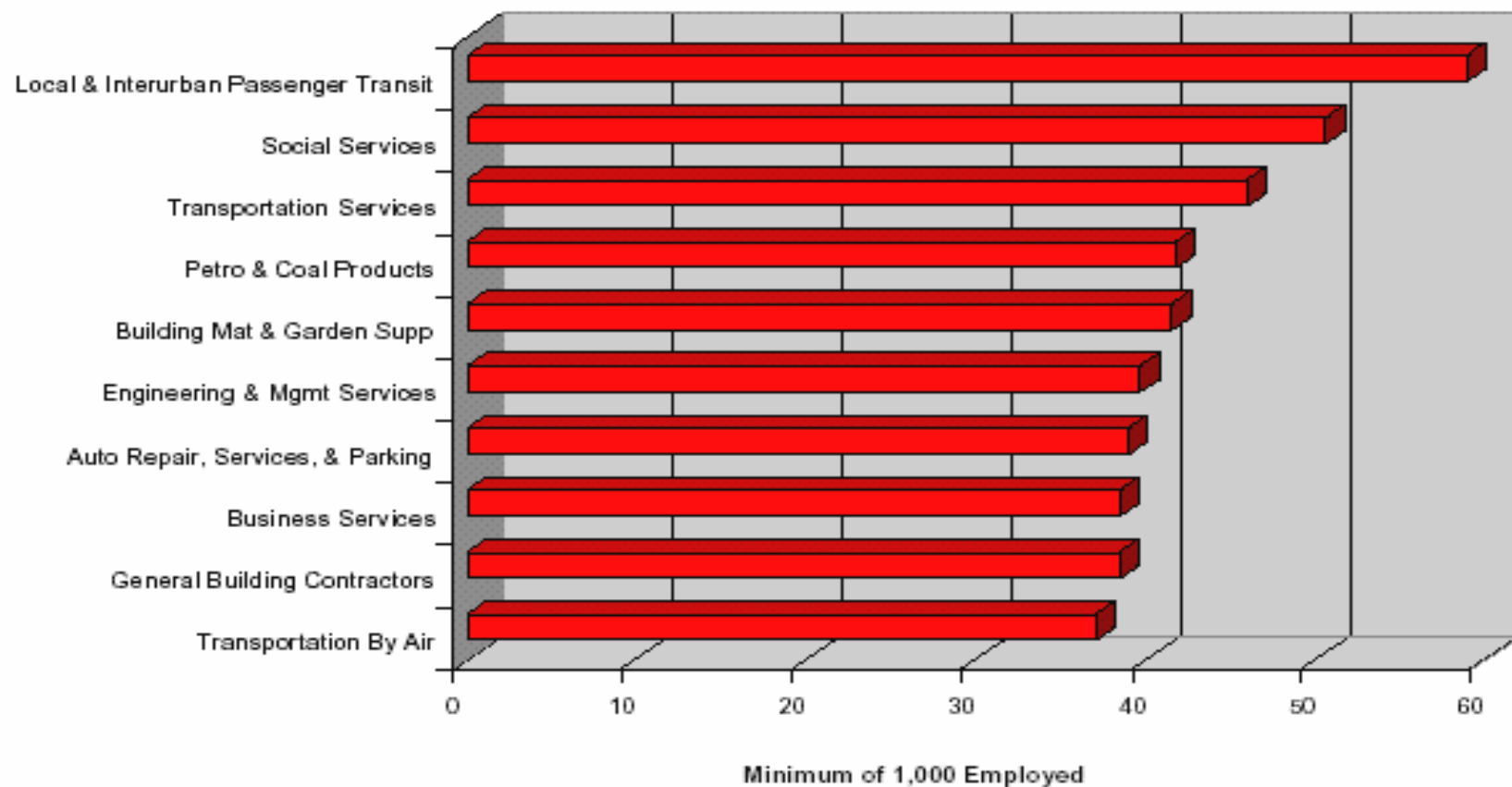
Family of four (2 children under 18) -
\$17,960

Family of five (3 children under 18) -
\$21,665



Labor Patterns in Tennessee

High Growth Industries in Tennessee by Percentage Change
1998 - 2008



Economic Comparisons: Projected Job Growth

- Tennessee:**
1. Local and Interurban Passenger Transit
 2. Social Services
 3. Transportation Services

21.5% require college degree or management experience

- Georgia**
1. Computer Engineers
 2. Systems Analysts
 3. Sales Agents, Business

21.8% require bachelors or higher degree



The Progressive Policy Institute - New Economies Index

STATES BY RANK					
Rank 2002	Score 2002	State	Rank 1999	Score 1999	Rank Change
1	90	Massachusetts	1	82.3	0
2	86.2	Washington	4	69	2
3	85.5	California	2	74.3	-1
4	84.3	Colorado	3	72.3	-1
5	75.6	Maryland	11	59.2	6
8	72.1	Virginia	12	58.8	4
9	70.5	Delaware	9	59.9	0
14	67.6	Texas	17	52.3	3
18	62.7	Florida	20	50.8	2
22	60.1	Georgia	25	46.6	3
26	57.5	NC	30	45.2	4
34	54.1	Oklahoma	40	38.6	6
39	52.2	Tennessee	31	45.1	-8
41	51.1	SC	38	39.7	-3
42	48.6	Kentucky	39	39.4	-3
45	45.9	Louisiana	47	28.2	2
47	45.3	Alabama	44	32.3	-3
48	41.7	Arkansas	49	26.2	1
49	40.9	Mississippi	50	22.6	1
50	40.7	West Virginia	48	26.8	-2

- TN rank declines by 8 in three years
- Historically, the economies of states such as TN depend on natural resources, or on mass production manufacturing, and rely on low production costs rather than innovative capacity, to gain a competitive advantage.
- Innovative capacity (derived through universities, R&D investments, scientists and engineers, and entrepreneurial drive) is increasingly what drives competitive success in the New Economy.



Conclusions – Issues for Consideration



Pathways, Promises, and Potential

- The benefits of strategic geography
- The impact of middle Tennessee on economic, social, and cultural growth
- The presence of a large, yet untapped 24-44 year old population, many with “some college” experience
- The presence of a pronounced baby boom echo
- Potential implementation of a lottery based scholarship initiative
- Research capacities in health care, ORNL, etc.
- Creative and innovative faculty across all systems



Challenges and Considerations

- Unstable funding and policy environment.
- Diminished resources as a result of external mandates.
- The increased demand for access will place great stress on higher education in the 2000's.
- Increasing tuition rates will create potential access barriers.
- Increasing calls for accountability and oversight.
- Wild cards



Public Policy Opportunities

- The increased demand for education could facilitate the creation of managed ecosystems.
- The P-16 initiative could expand opportunities, align curricula, and improve quality.
- Potential to balance enrollment and programming preferences.
- Continued struggles for leadership in a state that is data rich and knowledge poor.
- Redefinition of strategic priorities and the creation of specialty, rather than supermarket, institutions.



